



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. Box 3378  
Honolulu, HI 96801-3378

In reply, please refer to:  
File:

**NEUROTRAUMA ADVISORY BOARD (NTAB)**  
**MEETING MINUTES**  
**April 26, 2019**

*Present: Rita Manriquez, Stella Wong, Molly Trihey, Scott Sagum, Milton Takara, Dr. Sara Farnham, Leilani Nutt, Lyna Burian*

*Excused: Valerie Yamada, Angie Enoka*

*Others: Tina Robertson, Queen's Medical Center (QMC); Dr. Violet Horvath, Pacific Disabilities Center (PDC); Ipo Kaihana, Support Guest; Patti Christian, Rehabilitation Hospital of the Pacific*

*DOH Staff: Curtis Inouye, Neurotrauma Supports; Chelsea Ko, Neurotrauma Supports; Michele Tong, Neurotrauma Supports*

**I. Call to Order** – Meeting was called to order at 1:40 pm by Chair Scott Sagum. Quorum present.

**II. Approval of Minutes from the February 22, 2019 meeting –**

*Board Member Stella Wong motioned to accept the minutes as written. Board Member Molly Trihey seconded the motion. All Board Members present voted in favor of minutes being accepted as written. No questions or discussions.*

- III. **Review of Agenda** – *Board Member Stella Wong motioned to accept the agenda as written. Board Member Molly Trihey seconded the motion. All Board Members present voted in favor of accepting the agenda. No questions or discussions.*

IV. **New Business:**

A. *Head Into Summer Event:*

*Head into Summer Event will be held on May 5<sup>th</sup> from 8:30-12:00pm, at Farmer's Market-Kailua Elementary School. Neurotrauma Supports will be giving away bike helmets and information on TBI (traumatic brain injury). The Hawaii Bicycle League and UH-HCAMP will also attend, along with neurological researcher, Dr. DuBay for real "brain" time.*

V. **Old Business:**

A. *Stroke Awareness Event Update:*

*The Stroke Awareness mini-health fair will be held on May 18<sup>th</sup>, from 9:00-12:00pm at Kahala Mall. Participating vendors such as HMSA, the American Heart Association,*

*and Queen's Medical Center will provide information about stroke awareness and prevention.*

*Neurotrauma Supports is currently working with HMSA in hopes of participating in a Women's Health Fair on Maui, at Kaahumanu Center Mall on May 25th. Stroke awareness and prevention information will be provided to the public to commemorate Stroke Awareness Month.*

*B. Brain Injury Awareness Month Update:*

*Neurotrauma Supports held two informational events in March at Farmer's Market Pearlridge and Kakaako. Neurotrauma provided TBI education and awareness, and real "brain" time with Dr. DuBay. DOH Staff Chelsea Ko was also interviewed by KITV4 news media regarding Brain Injury Awareness Month and both events.*

*C. Project Head, Neck, Spine (PHNS) Update:*

*(not present; PHNS Report disseminated)*

*D. Pacific Disabilities Center (PDC)/Hawaii Neurotrauma Registry (HNTR)*

Update:

*Dr. Violet Horvath of PDC provided Year-6 (March 2018 – March 2019) reports of the HNTR Informational Referral and Project activities. Details can be found on the reports disseminated during the meeting.*

*HNTR is planning more community outreach to neighboring islands; thus far, they've completed two trips to Maui, with six more scheduled trips. Chair Scott Sagum agreed community outreach might help to address the shortage and need of specialized doctors on Hawaii, Maui, and Kauai.*

*Interviews are currently being held to fulfill two-staff openings with HNTR.*

- E. Hawaiian Islands Regional Stroke Network (HIRSN) Update:  
Year-to-date, HIRSN received a total of 115 calls, 107 of these being completed calls. So far, 32-patients were treated with IV tPA, 8-patients were transferred to QMC for thrombectomy but only 4-patients received actual treatment.*

*Funding for the HIRSN project ends in June. The remaining balance will be used for stroke education and awareness in*

*the Waianae/Nanakuli area. Per Tina Robertson of QMC, the final HIRSN report may be presented by Dr. Koenig during the next scheduled board meeting. In the interim, QMC will continue to work with hospital sites on the tele-stroke program on a fee-for-service basis.*

*F. Transfer Training Update:*

*Per DOH Staff Curtis Inouye, the transfer training project was terminated. Neurotrauma Supports is currently awaiting a formal letter from Rehab. Hospital of the Pacific of the termination, until then, questions will be deferred until the letter is received.*

*G. Brain Injury Association (BIA) of Hawaii Update:*

*Per Lyna Burian, BIA may be acquiring office space at Rehabilitation Hospital of the Pacific but no storage space.*

*H. Legislative Update:*

*No current update.*

*I. Neighbor Island Activities:*

*Per Chair Scott Sagum, Surfer's Myelopathy classes are still ongoing for lifeguards on Kauai. Requests were received to conduct refresher courses throughout the year*

**J. DOH Updates:**

*No current update.*

**VI. Announcements:**

**Brain Injury Association of Hawaii**

**Support Group and Educational Meetings**

1. *1<sup>st</sup> Saturdays, 1:00-3:00 p.m., Rehabilitation Hospital of the Pacific, Wo Conference Room #4*
2. *3<sup>rd</sup> Wednesdays, 6:00-8:00 p.m., Rehabilitation Hospital of the Pacific, Wo Conference Room #4*

**VII. Next Meeting:**

**Date:** *June 28, 2019*

**Location:** *Kalanimoku VCC and Neighbor Island Sites*

**Time:** *1:30 p.m. to 4:00 p.m.*

*Meeting Adjourned at 2:34 pm*

Project Head, Neck, Spine Update  
NTAB Meeting on 6/28/19

**Six schools utilizing curriculum:**

- Three high school and three middle schools
- Four on Oahu
  - 3 Honolulu (Middle N = 281; High N = 113)
  - 1 West Oahu (High = 131)
- Two on Maui (Middle N = 116; High N=123)

**Data:**

- 7 instructors (one instructor using again in summer school)
- Total students N = 764
  - Average summary score of 81.8%
  - 467 done with module 4 (half-way)
    - Average summary score of 83.1%
  - 313 complete *\*Sorry the last report had a typo it is 313 not 343.*
    - Average summary score of 86.1%
- Pre- and Post-test data
  - Pre-test average of 58.5%
  - Post-test average of 76.9%
- Module average scores
  - All above 80%, except for Module 2 (73%) which is a bit more technical (i.e. parts of brain)



**Hawai'i Neurotrauma Registry Project Report**  
**for the Neurotrauma Advisory Board**  
**June 28, 2019, 1:30 — 4:00 pm**

**Report Outline**

1. Registry Recruitment and Variables
2. Community Outreach – Events, Presentations, and Meetings

The three main goals of the Hawaii Neurotrauma Registry Project are:

1. Recruit Hawaii residents on all islands and of all ages with neurotrauma injuries to take a voluntary survey on their injuries and post-injury needs and circumstances
2. Provide education to the general public and professionals on all islands about neurotrauma injuries and the Registry
3. Offer Information and Referral services to Hawaii residents with neurotrauma injuries and their family members, caregivers, and other supports

Information gathered from the surveys assists the Department of Health in identifying the community supports and services needed by neurotrauma injury survivors, helps to educate service providers, and helps to develop safety and prevention plans and policies.



## Registry Recruitment

Year	Time Period	Number of Unique Persons
1	March 21, 2013 – March 20, 2014	41
2	March 21, 2014 – March 20, 2015	57
3	March 21, 2015 – March 20, 2016	44
4	March 21, 2016 – March 20, 2017	53
5	March 21, 2017 – March 19, 2018	53
6	March 20, 2018 – March 19, 2019	65
7	March 20, 2019 – June 18, 2019	13
	Total	326

## Registry Participation

Update for April, May and part of June 2019:

Two persons (a female and a male, one on Maui, one on Oahu) took the survey in April. One had an acquired brain injury and the other had a traumatic brain injury.

Six males, all located on Oahu, completed the survey in May. Two reported having two neurotrauma injuries. All told, there were four traumatic brain injuries, two acquired brain injuries, a hemorrhagic stroke, and an ischemic stroke.

As of June 18, 2019, four have taken the survey: three males and one female. One person lives on Oahu and three live on Maui. Two had ischemic strokes, one had a traumatic brain injury, and another had a spinal cord injury.

So far, 13 people have taken the survey in Year 7.

<b>Variable</b>	<b>Attribute</b>	<b>Number N=326</b>
Gender	Males	163
	Females	162
	Missing	2
Who completed the survey	Person with NT injury	67
	HNTR Staff	33

	Spouse / Partner / Significant Other of person with NT injury	15
	Parent of person with NT injury	10
	Child of person with NT injury	8
	Sibling of person with NT injury	2
	Other	4
Location	Oahu	272
	Hawaii	36
	Maui	14
	Kauai	4
	Molokai	1
	Washington State	1
	Missing	1

Traumatic Brain Injury	Includes first, second, or third TBI, concussion, or head injury	175
Acquired Brain Injury	Includes first, second, or third ABI	35
Stroke	Type not known	12
Stroke – Hemorrhagic	Includes first, second, or third hemorrhagic stroke	49
Stroke – Ischemic	Includes first, second, or third ischemic stroke	92
Transient Ischmic Attack		4
Spinal Cord Injury	Includes first, second, or third SCI	48
Missing		3
Other		14

## **Community Outreach**

### **Events, Presentations, and Meetings – May 2019:**

1. Meeting at REHAB Hospital to discuss a proposal for monthly HNTR workshops for caregivers and survivors – May 1, 2019
2. Queen's Hospital "Stop the Bleed" Health Fair – May 15, 2019
3. DOH Stroke Awareness Mini-Health Fair – May 18, 2019
4. REHAB Hospital, Dr. Hughes' weekly meeting for patients and caregivers – May 24, 2019

### **Events, Presentations, and Meetings – June 2019:**

1. Hana Caregiver Support Group / Workshop – June 12, 2019
2. Lahaina Caregiver Support Group / Workshop – June 20, 2019
3. Kihei Caregiver Support Group / Workshop – June 25, 2019
4. Queen's Medical Center Lecture, "Brain Aneurysms and Advances in Treatment" – June 26, 2019

### **Future Events and Presentations:**

1. Central / Wailuku Caregiver Support Group / Workshop – August 3, 2019
2. Keiki Bike & Skateboard Safety Day – August 3, 2019 (Lihue, tentative)
3. REHAB Hospital Stroke Club – August 6, 2019

4. Parent Leadership & Advocacy Conference – August 8, 2019  
(Kaunakakai, tentative)
5. Molokai Caregiver Support Group / Workshop – August 9, 2019  
(Kaunakakai)
6. Generations Magazine Aging in Place Workshop – August 17, 2019
7. Parent Leadership & Advocacy Conference – August 22, 2019 (Lanai City,  
tentative)
8. Lanai Caregiver Support Group / Workshop – August 23, 2019 (Lanai  
City)
9. Parent Leadership & Advocacy Conference – September 7, 2019 (Hilo,  
tentative)
10. Parent Leadership & Advocacy Conference – September 12, 2019  
(Kahului, tentative)
11. Parent Leadership & Advocacy Conference – September 21, 2019 (Laie,  
tentative)
12. Parent Leadership & Advocacy Conference – October 5, 2019 (Oahu,  
location TBD, tentative)
13. UH Manoa Master of Social Work class – October 16, 2019
14. HMSA Akamai Living Senior Fair – October 18, 2019 (Hilo)

15. HMSA Akamai Living Senior Fair – November 22, 2019 (Kona)
16. Health and Medicine Association (HAMA), Kapiolani Community College
  - to be rescheduled for the fall
17. Leeward Community Church Senior Group – to be rescheduled once church repairs are complete

## Hawaiian Islands Regional Stroke Network Update

(Funded by a grant from the Hawaii State Dept. of Health Neurotrauma Fund)

Hub site: The Queen's Medical Center

### Current spoke sites:

Current active sites are Molokai General Hospital, Wahiawa General Hospital, Hilo Medical Center, The Queen's Medical Center—West O'ahu, Kona Community Hospital, North Hawaii Community Hospital, The Queen's Medical Center Punchbowl and Kahuku Medical Center.

Maui Memorial Medical Center has transitioned from state-owned to a Kaiser subsidiary so is no longer a spoke site as of 03/01/2018.

### Total Activity to date

Total Calls	1413		
Incomplete Calls	162	Triage calls, not telestroke	101
		Technical difficulties	61
Completed Calls	1251	Molokai General Hospital (MGH)	40
		Wahiawa General Hospital (WGH)	116
		Hilo Medical Center (HMC)	195
		The Queen's Medical Center West (QMC-W)	574
		Kona Community Hospital (KCH)	124
		Maui Memorial Medical Center (MMMC)	28
		North Hawaii Community Hospital (NHCH)	80
		The Queen's Medical Center Punchbowl	86
		Kahuku Medical Center	8
# IV tPA Administrations	424	# Transferred to QMC Punchbowl	262
		# Not transferred-remained at site or transferred to another institution	162
Total Transfers to QMC Punchbowl	384	Non tPA Transfers	122



Activity year to date 01/01/2019 to 05/31/2019

Total Calls	195	Completed Calls	186
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Provider Education:

In-person site visits were conducted at spoke sites which included half-day sessions to review the telestroke utilization and outcome data at each of site, provider education on new stroke guidelines, and refresher training on how to use the telestroke equipment.

Public Education:

Spring 2018– Campbell-Kapolei Complex Elementary and Middle School

Spring 2019– Nanakuli-Waianae School District- education for grades kindergarten through 5.

Stroke Education:

We completed stroke education sessions in the above school complexes in west Oahu reaching over 15,000 students and parents with the F.A.S.T information.

Project Sustainability:

The Hawaiian Islands Regional Stroke Network will fund itself through a subscription-based hub-and-spoke model. Contracts are in place with Non-QMC sites to continue the project.

## Hawaiian Islands Regional Stroke Network Update

(Funded by a grant from the Hawaii State Dept. of Health Neurotrauma Fund)

Hub site: The Queen's Medical Center

### Current spoke sites:

Current active sites are Molokai General Hospital (activated on 11/8/2011), Wahiawa General Hospital (activated on 6/21/12), Hilo Medical Center (activated on 8/1/13), The Queen's Medical Center—West O'ahu (activated on 1/12/15), Kona Community Hospital (activated on 5/27/15), North Hawaii Community Hospital (activated 12/15/15), The Queen's Medical Center Punchbowl and Kahuku Medical Center (activated on 09/01/17). The nine spoke site hospitals – ED MDs and nurses, hospitalists, and administration - have been educated on stroke care paths and protocols and in-serviced on use of the technology.

Maui Memorial Medical Center has transitioned from state-owned to a Kaiser subsidiary so is no longer a spoke site as of 03/01/2018.

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Activity year to date 01/01/2019 to 05/31/2019

Total Calls	192		
Incomplete Calls	9	Triage calls	9
		Technical difficulties	0
Completed Calls	183	Molokai General Hospital (MGH)	1
		Wahiawa General Hospital (WGH)	14
		Hilo Medical Center (HMC)	40
		The Queen's Medical Center West Oahu (QMC-W)	86
		Kona Community Hospital (KCH)	15
		North Hawaii Community Hospital (NHCH)	18
		The Queen's Medical Center Punchbowl	8
		Kahuku Medical Center	1
# IV tPA Administrations	55	# Transferred to QMC Punchbowl	27
		# Not transferred-remained at site or transferred to another institution	28
Total Transfers to QMC Punchbowl	49	Non tPA Transfers	22
Potential Thrombectomy Cases	14	Thrombectomy completed	10

IV tPA Administration Summary

tPA #	Spoke Site	Encounter Duration (min)	Transfer to QMC Punchbowl?	Initial NIHSS	Last NIHSS	DC Disposition
1	MGH	60	YES	6	1	Home
2	WGH	45	YES	9	2	Home
3	WGH	UTD	YES	16	16	Hospice
4	WGH	60	YES	5	0	Home
5	WGH	45	YES	14	0	Hone
6	WGH	35	YES	13	13	SNF w/ POLST
7	WGH	40	YES	6	2	Home
8	WGH	60	YES	5	0	Home
9	WGH	50	YES	8	ND	RHOP
10	WGH	30	YES	3	3	Home
11	WGH	40	YES	11	13	RHOP
12	HMC	40	NO	13	UTD	UTD
13	MGH	35	YES	11	6	RHOP
14	WGH	35	YES	15	3	RHOP
15	MGH	15	YES	7	0	HOME
16	HMC	45	NO	6	4	Transfer Kaiser Acute
17	HMC	45	NO	7	UTD	SNF

18	WGH	40	NO	16	3	UTD
19	HMC	50	NO	17	UTD	Home
20	HMC	35	NO	21	21	UTD
21	MGH	40	YES	10	4	RHOP
22	HMC	30	NO	5	1	VA home
23	MGH	UTD	YES	9	10	RHOP
24	HMC	35	NO	ND	7	Home
25	WGH	30	YES	7	0	Home
26	MGH	UTD	YES	6	6	Home
27	QMC-W	35	YES	32	24	Foster Home
28	QMC-W	120	YES	4	1	Home
29	QMC-W	40	NO	16	UNK	Transfer Kaiser Acute
30	MGH	80	YES	20	29	Expired
31	HMC	30	NO	14	8	Home
32	QMC-W	90	YES	17	5	Home
33	WGH	90	YES	10	26	Expired
34	QMC-W	50	YES	6	9	RHOP
35	QMC-W	45	YES	6	0	Home
36	HMC	35	NO	ND	ND	Expired
37	QMC-W	90	YES	24	24	Expired
38	WGH	45	YES	31	27	Hospice
39	QMC-W	40	YES	9	0	Home
40	HMC	50	NO	6	ND	Home
41	MGH	45	YES	5	1	Home
42	QMC-W	40	YES	16	6	RHOP
43	QMC-W	50	YES	10	7	Home
44	QMC-W	60	NO	11	11	DC to Kaiser Acute
45	WGH	45	YES	11	2	Home
46	QMC-W	50	YES	14	20	SNF-Short Term Rehab
47	HMC	50	NO	11	5	SNF
48	QMC-W	40	YES	13	4	Home
49	WGH	90	YES	26	1	Home
50	QMC-W	90	YES	16	5	SNF-Short Term Rehab
51	QMC-W	50	YES	15	11	STR then Hospice
52	KCH	35	NO	2	0	Home
53	QMC-W	30	YES	5	0	Home
54	WGH	60	YES	7	ND	Home
55	WGH	30	YES	19	0	SNF-Short Term Rehab
56	QMC-W	55	YES	12	0	Home
57	HMC	30	NO	37	8	SNF
58	MMMC	30	NO	17	15	Home
59	QMC-W	60	YES	22	9	DC to RHOP
60	QMC-W	NA	YES	5	1	Home
61	WGH	50	YES	23	ND	Expired
62	QMC-W	40	YES	16	15	DC to RHOP

63	QMC-W	40	YES	18	20	Expired
64	HMC	20	NO	18	1	Home
65	QMC-W	30	YES	14	ND	Home Hospice
66	MMMC	50	NO	9	NA	Home
67	MMMC	30	NO	ND	15	Home
68	QMC-W	40	YES	2	0	SNF-Short Term Rehab
69	QMC-W	NA	YES	11	2	Home
70	QMC-W	40	YES	2	2	Home
71	QMC-W	30	YES	2	4	RHOP
72	MGH	ND	YES	22	15	RHOP
73	QMC-W	80	YES	17	5	RHOP
74	QMC-W	80	YES	16	2	Home
75	QMC-W	50	YES	7	2	Home
76	QMC-W	50	YES	18	3	RHOP
77	KCH	70	NO	10	6	Home
78	MMMC	50	NO	7	4	Mainland Rehab
79	QMC-W	30	YES	4	1	Home
80	MMMC	30	NO	14	3	Home
81	NHCH	50	NO	13	2	Transfer Kaiser Acute
82	QMC-W	50	YES	7	0	Home
83	KCH	60	YES	23	3	Home
84	NHCH	60	NO	9	2	SNF-Short Term Rehab
85	QMC-W	50	YES	9	4	RHOP
86	MGH	60	YES	26	17	Expired
87	HMC	60	NO	16	1	Home
88	KCH	35	NO	13	5	SNF
89	QMC-W	30	YES	7	9	SNF
90	MMMC	60	NO	24	UNK	Expired
91	QMC-W	50	YES	23	26	Hospice
92	QMC-W	35	YES	9	8	Home
93	QMC-W	45	YES	4	2	Home
94	KCH	50	NO	16	19	Home Hospice
95	QMC-W	50	YES	3	0	Home
96	QMC-W	50	YES	13	4	Home
97	KCH	40	NO	5	0	Home
98	NHCH	60	YES	12	0	Home
99	QMC-W	50	YES	4	1	Home
100	KCH	70	YES	24	30	Expired
101	QMC-W	50	YES	10	0	Home
102	WGH	50	YES	5	2	RHOP
103	WGH	50	YES	21	0	Home
104	WGH	50	YES	6	3	SNF-Short Term Rehab
105	HMC	50	NO	5	0	Home
106	NHCH	50	YES	4	2	RHOP
107	QMC-W	45	YES	9	1	Home
108	QMC-W	40	YES	10	1	Home

109	QMC-W	40	YES	7	1	RHOP
110	NHCH	50	YES	23	22	Home Hospice
111	QMC-W	50	YES	6	0	Home
112	QMC-W	50	YES	8	3	Home
113	KCH	50	NO	16	ND	Transfer Kaiser Acute
114	HMC	50	NO	18	ND	SNF-Short Term Rehab
115	NHCH	50	YES	15	3	HOME
116	QMC-W	40	YES	17	0	HOME
117	QMC-W	60	YES	19	14	Transfer Kaiser Acute
118	HMC	45	NO	23	18	SNF-Short Term Rehab
119	QMC-W	50	YES	9	7	RHOP
120	HMC	35	NO	1	0	Home
121	QMC-W	60	YES	8	15	Home (No insurance)
122	HMC	50	YES	11	0	Home
123	QMC-W	45	YES	4	4	Transfer Kaiser Acute
124	HMC	60	NO	5	ND	Home
125	QMC-W	55	YES	6	0	Home
126	QMC-W	50	YES	6	0	Home
127	NHCH	50	NO	5	2	Home
128	QMC-W	45	YES	4	1	HOME
129	HMC	40	NO	14	17	Hospice
130	QMC-W	50	YES	4	0	Home
131	QMC-W	40	YES	35	6	SNF-Short Term Rehab
132	QMC-W	40	YES	12	8	RHOP
133	MGH	40	YES	18	25	Hospice
134	NHCH	50	YES	6	3	Home
135	KCH	60	YES	7	1	Home
136	QMC-W	60	YES	2	0	Home
137	KCH	40	NO	4	0	Home
138	HMC	40	NO	24	ND	Home
139	KCH	45	NO	6	7	SNF
140	WGH	60	YES	17	5	Foster Home
141	HMC	65	YES	3	3	SNF
142	WEST	40	YES	6	0	Transfer Kaiser Acute
143	KCH	40	NO	15	13	Home
144	MMMC	35	NO	2	0	Home
145	KCH	50	YES	5	0	Home
146	HMC	50	NO	8	9	RHOP
147	MGH	50	YES	5	9	RHOP
148	WEST	45	YES	9	6	RHOP
149	KCH	50	YES	5	24	Expired (ICH)
150	MGH	60	YES	5	1	Home
151	QMC-W	50	YES	5	3	Home
152	QMC-W	50	YES	5	0	HOME
153	WGH	40	YES	4	6	RHOP
154	WGH	50	YES	3	4	RHOP

155	QMC-W	50	YES	8	0	Home
156	QMC-PB	50	YES	12	2	SNF-Short Term Rehab
157	QMC-W	70	YES	28	29	Expired
158	QMC-W	45	YES	11	0	Home
159	WGH	50	YES	5	0	Home
160	QMC-W	50	YES	6	0	Home
161	QMC-W	45	YES	11	5	Home
162	HMC	40	NO	9	7	SNF
163	QMC-W	45	YES	3	0	Home
164	QMC-W	60	YES	28	28	Expired
165	QMC-W	40	YES	11	1	Home
166	QMC-W	60	YES	8	4	RHOP
167	QMC-W	50	YES	20	3	Home
168	QMC-PB	60	NA	18	15	SNF-Short Term Rehab
169	QMC-W	ND	YES	29	4	RHOP
170	WGH	40	YES	24	32	Expired
171	QMC-W	40	YES	3	0	Home
172	QMC-W	50	YES	20	32	SNF
173	NHCH	40	YES	26	22	SNF-Short Term Rehab
174	HMC	40	NO	20	ND	SNF
175	QMC-W	50	YES	2	0	Home
176	QMC-PB	40	YES	4	0	Home
177	QMC-W	60	YES	4	0	Home
178	HMC	60	NO	18	7	Long Term Care
179	QMC-W	50	YES	20	6	Left AMA- Home
180	QMC-PB	60	NA	25	17	RHOP
181	WGH	40	YES	6	1	Home
182	QMC-W	60	YES	17	7	SNF-Short Term Rehab
183	QMC-W	60	YES	4	1	Home
184	KCH	60	YES	24	32	Hospice
185	QMC-W	50	YES	21	15	Inpatient Rehab in WA
186	QMC-PB	50	NA	4	1	Home
187	MMMC	40	NO	3	0	Home
188	HMC	40	NO	20	11	SNF
189	HMC	50	NO	6	0	Home
190	KCH	50	NO	4	2	SNF
191	HMC	45	NO	10	2	SNF
192	PB	45	NO	17	4	RHOP
193	HMC	50	NO	4	1	Home
194	QMC-PB	50	NA	20	25	Expired
195	QMC-W	45	YES	7	7	Home (Chronic Pain)
196	QMC-W	ND	YES	12	2	Home
197	QMC-W	50	YES	4	0	Home
198	QMC-W	50	YES	3	0	Home
199	KCH	50	YES	16	4	RHOP
200	QMC-W	60	YES	3	1	Home

201	QMC-W	ND	YES	30	23	Expired
202	HMC	30	NO	2	0	Home
203	QMC-W	45	YES	13	30	Home Hospice
204	QMC-W	60	YES	4	0	Home
205	HMC	60	NO	7	0	Home
206	WGH	ND	YES	27	20	SNF-Short Term Rehab
207	QMC-W	60	YES	10	1	Home
208	QMC-PB	40	NA	13	3	SNF-Short Term Rehab
209	QMC-W	45	YES	6	3	Home
210	QMC-W	50	YES	4	6	RHOP
211	HMC	50	NO	21	21	SNF
212	QMC-W	50	YES	7	3	RHOP
213	QMC-W	45	YES	26	35	Expired
214	QMC-W	ND	YES	10	4	Home
215	HMC	50	NO	9	0	Home
216	KCH	65	NO	12	0	Home
217	QMC-W	30	YES	10	0	Home
218	QMC-W	40	YES	2	0	Home
219	HMC	40	NO	14	13	SNF
220	QMC-W	70	YES	11	11	RHOP
221	QMC-PB	70	NA	8	0	Home
222	QMC-W	60	YES	8	0	Home
223	QMC-PB	60	NA	11	0	SNF (Behavioral issues)
224	KCH	40	NO	3	0	SNF
225	NHCH	60	YES	20	5	RHOP
226	KCH	55	NO	4	3	Home
227	QMC-PB	40	NA	8	0	Home
228	QMC-PB	40	NA	13	0	Home
229	KCH	45	YES	6	0	Home
230	KCH	40	NO	7	6	RHOP
231	QMC-W	40	NO	11	6	Kaiser Acute
232	KCH	40	NO	3	3	Home
233	QMC-W	60	YES	16	10	Home-Foster Care
234	QMC-W	45	YES	1	1	RHOP
235	QMC-W	50	YES	5	0	Home
236	QMC-W	70	YES	6	1	Home
237	KCH	60	YES	22	0	Home
238	NHCH	40	YES	21	3	RHOP
239	KAHUKU	40	YES	4	0	Home
240	QMC-W	60	YES	6	0	Home
241	QMC-W	45	YES	4	0	Home
242	HMC	40	NO	4	4	Home
243	QMC-PB	70	NA	7	5	RHOP
244	QMC-W	45	YES	7	3	RHOP
245	QMC-W	70	YES	4	0	Home
246	KCH	60	YES	24	1	Home



247	QMC-W	40	NO	3	ND	Kaiser Acute
248	QMC-W	120	NO	22	ND	Kaiser Acute
249	NHCH	50	YES	21	6	RHOP
250	QMC-W	50	YES	5	3	Home
251	KCH	60	YES	14	0	Home
252	NHCH	45	YES	17	6	RHOP
253	QMC-W	45	YES	5	2	Home
254	QMC-W	45	YES	2	2	Home
255	QMC-W	70	YES	19	2	Home
256	HMC	50	NO	7	ND	SNF
257	QMC-W	70	YES	5	0	Home
258	HMC	50	NO	7	4	SNF
259	QMC-W	45	YES	4	0	Home
260	QMC-W	40	YES	6	3	RHOP
261	KAHUKU	40	YES	6	1	Home
262	QMC-W	45	YES	25	0	Home
263	HMC	35	NO	1	0	Home
264	WGH	35	YES	11	5	Home
265	QMC-W	70	NO	21	NA	Kaiser Acute
266	WGH	50	YES	4	1	Home
267	QMC-PB	40	NA	3	0	Home
268	HMC	50	NO	5	1	Home
269	WGH	60	NO	21	NA	Kaiser Acute
270	WGH	35	YES	18	27	SNF
271	QMC-W	65	YES	21	4	RHOP
272	PB	70	NA	7	7	RHOP
273	QMC-W	45	YES	19	18	Home (seizure)
274	KCH	60	NO	13	2	Expired (MI/Cardiac arrest)
275	NHCH	60	NO	15	ND	SNF-Short Term Rehab
276	WGH	50	NO	7	0	Kaiser Acute
277	KCH	50	NO	7	3	Home
278	QMC-W	45	YES	9	5	RHOP
279	WGH	50	NO	24	ND	Expired
280	PB	45	NA	3	0	Home
281	QMC-W	45	YES	5	3	Home
282	KCH	60	YES	6	1	Home
283	QMC-W	100	YES	29	26	Expired
284	MGH	40	YES	15	4	Home
285	QMC-W	70	YES	9	3	SNF-Short Term Rehab
286	KCH	40	NO	2	ND	Home
287	QMC-W	60	YES	10	29	Home Hospice
288	PB	50	NA	9	1	Home
289	KAHUKU	50	YES	5	0	Home
290	QMC-W	60	YES	20	25	SNF-Short Term Rehab
291	NHCH	70	NO	24	ND	RHOP
292	KCH	40	NO	9	5	Home

293	QMC-W	60	YES	4	0	Home
294	KCH	60	NO	10	4	SNF
295	QMC-W	60	YES	6	1	Home
296	QMC-W	45	YES	26	21	Hospice
297	QMC-W	60	YES	19	1	Home
298	QMC-W	60	YES	4	2	Home
299	KCH	60	NO	4	3	SNF
300	PB	50	NA	3	0	Home
301	KCH	60	NO	7	ND	SNF
302	KCH	45	NO	24	19	SNF
303	KCH	35	NO	4	1	Home
304	WGH	40	YES	11	0	Home
305	KAHUKU	50	YES	4	1	Home
306	WGH	50	YES	15	5	Home
307	PB	45	NA	1	0	Home
308	PB	70	NA	20	20	Expired
309	QMC-W	35	YES	5	2	Home
310	MGH	50	YES	4	3	SNF
311	PB	50	NA	15	3	RHOP
312	QMC-W	50	YES	23	0	Home
313	HMC	40	NO	4	UNK	Home
314	KCH	45	NO	21	1	Home
315	NHCH	40	NO	10	1	Home
316	QMC-W	70	YES	8	1	Home
317	QMC-W	45	YES	13	NA	Kaiser Acute
318	QMC-W	60	YES	16	13	Kaiser Acute
319	HMC	50	NO	10	0	SNF
320	KCH	35	NO	25	15	RHOP
321	MGH	35	YES	14	0	Home
322	WGH	30	YES	20	16	SNF-Short Term Rehab
323	QMC-W	40	YES	4	25	Expired
324	QMC-W	50	YES	23	24	Expired
325	HMC	50	NO	4	1	Home AMA
326	WGH	60	NO	15	10	RHOP
327	HMC	90	YES	6	16	SNF-Short Term Rehab
328	HMC	50	NO	5	7	SNF
329	HMC	50	NO	1	0	Home
330	HMC	35	NO	5	4	SNF
331	QMC-W	60	YES	9	4	Home
332	WGH	35	NO	24	22	Hospice
333	NHCH	70	YES	34	36	Expired
334	QMC-W	70	YES	10	0	Home
335	HMC	35	NO	3	0	Home
336	KCH	40	NO	8	1	Home
337	NHCH	40	NO	3	2	RHOP
338	QMC-W	60	YES	10	4	RHOP

339	QMC-W	50	YES	20	14	RHOP
340	HMC	30	NO	3	0	Home
341	QMC-W	70	YES	13	6	Home
342	QMC-W	60	YES	7	0	Home
343	KCH	30	NO	5	UNK	Home
344	QMC-W	45	YES	4	6	Home
345	QMC-W	60	YES	4	0	Home
346	QMC-W	60	YES	5	1	Home
347	QMC-W	70	YES	12	4	Home
348	HMC	40	NO	3	ND	Home AMA
349	QMC-W	50	YES	33	14	SNF-Short Term Rehab
350	QMC-W	60	YES	17	4	RHOP
351	HMC	45	NO	23	0	SNF
352	NHCH	60	NO	28	6	SNF-Short Term Rehab
353	NHCH	50	NO	11	12	SNF
354	QMC-W	45	YES	23	18	Hospice
355	PB (inpt)	45	NA	23	NA	Expired (cardiac arrest)
356	WGH	60	YES	5	0	Home
357	HMC	60	NO	16	7	SNF-Short Term Rehab
358	QMC-W	70	YES	18	15	ICF
359	WGH	60	NO	7	0	Home
360	HMC	60	NO	ND	0	Home
361	WGH	60	YES	9	2	Home
362	QMC-W	60	YES	10	8	RHOP
363	HMC	40	NO	5	3	SNF
364	HMC	45	NO	5	2	SNF-Short Term Rehab
365	PB	60	YES	4	4	SNF-Short Term Rehab
366	QMC-W	40	YES	11	4	RHOP
367	NHCH	70	NO	30	28	Hospice
368	MGH	60	YES	ND	2	SNF-Short Term Rehab
369	QMC-W	40	YES	7	0	Home
370	HMC	70	NO	21	ND	Expired
371	PB	70	NA	22	13	RHOP
372	HMC	70	YES	30	3	Home
373	QMC-W	40	NO	3	0	Home
374	HMC	50	NO	28		SNF-Short Term Rehab
375	NHCH	40	NO	3	0	Home
376	QMC-W	30	NO	5	NA	Kaiser Acute
377	QMC-W	35	YES	11	2	RHOP
378	KCH	60	NO	5	3	Home
379	QMC-W	60	YES	5	2	RHOP
380	QMC-W	60	YES	4	0	Home
381	HMC	30	NO	4	1	Home
382	QMC-W	40	YES	10	3	Home
383	QMC-W	60	YES	13	13	RHOP
384	QMC-W	45	YES	7	0	Home

385	QMC-W	45	YES	6	0	Home
386	QMC-W	60	NO	7	0	Home
387	NHCH	50	YES	20	2	Home
388	HMC	70	YES	22	22	Expired
389	NHCH	40	NO	1	0	Home
390	NHCH	60	NO	5	8	Home w/ PT/OT
391	QMC-W	60	YES	5	0	Home
392	QMC-W	35	YES	9	4	Home
393	KCH	60	NO	5	2	SNF
394	HMC	60	YES	21	17	RHOP
395	KCH	35	NO	7	0	Home
396	QMC-W	40	YES	6	2	Home
397	HMC	45	NO	14	6	Home w/ PT/OT
398	QMC-W	60	YES	9	3	SNF-Short Term Rehab
399	KCH	30	NO	2	3	Home
400	PB	45	NA	23	33	Expired
401	QMC-W	60	YES	13	2	Home
402	PB	60	NA	19	9	Home
403	WGH	40	YES	25	11	RHOP
404	WGH	60	YES	12	8	RHOP
405	HMC	60	YES	10	4	Home
406	HMC	60	NO	7	1	Home
407	HMC	60	NO	4	0	Home
408	HMC	60	NO	9	8	SNF
409	HMC	60	NO	7	8	SNF
410	QMC-W	60	YES	20	16	Kaiser Acute
411	HMC	40	NO	14		
412	QMC-W	60	YES	5	17	RHOP
413	WGH	60	YES	10	0	Home
414	QMC-W	45	YES	23	33	Hospice
415	KCH	60	NO	7		
416	HMC	30	NO	4		
417	PB	40	NA	5	0	Home
418	HMC	60	NO	39		
419	QMC-W	50	YES	6	1	Home
420	HMC	40	NO	3		
421	HMC	40	NO	4		
422	HMC	35	NO	9		
423	NHCH	40	NO	3	3	Home
424	QMC-W	45	YES	4	0	Home

- 122 patients did not receive t-PA but transferred to QMC for further treatment such as endovascular reperfusion, closer monitoring, further evaluation and diagnosis of intracerebral hemorrhage (ICH).

- 698 patients remained at spoke site or were transferred to another institution since they were not tPA candidates and did not require a higher level of care. These patients were diagnosed with mild stroke, completed stroke, complex migraine, seizure, old stroke, ICH, fatal stroke or with transient symptoms.
- 68 patients at HMC, 8 patients at MMMC, 14 patients at NHCH, 28 patients at KCH, 4 patients from Wahiawa General, 1 patient at QMC West and 22 patients at QMC Punchbowl received t-PA and remained at site. 8 patients from QMC West and 1 patient from NHCH transferred to Kaiser.
- Telemedicine encounters require about 35-70 minutes of direct critical care time.

### Community Education

- January 2019– Nanakuli-Waianae School District Elementary and Middle School Stroke Education: Jen Moran, MS, ACNP in collaboration with the American Heart Association ongoing stroke education sessions.
- Spring 2018– Campbell-Kapolei Complex Elementary and Middle School Stroke Education: Jen Moran, MS, ACNP in collaboration with the American Heart Association completed stroke education sessions in the Campbell-Kapolei school complex in west Oahu reaching over 15,000 students and parents with the F.A.S.T information
- January 3, 2018 – MaryKnoll First Graders □ FAST Stroke Education □ Jennifer Moran
- December 2017 – Kupuna Community Service □ Sid Jackler, PA. HPD sponsored. 200 attended and received bags with stroke information.
- November 2017 – Ultimate Frisbee Tournament. Over 500 participants ages 20□60, US and international guests. Dispensed FAST magnets, gift bags.
- September 21, 2017 – Jen Moran, MS, provided stroke education at the 6th Annual Molokai Disability Resource Fai for Molokai community members – seniors
- June,6, 2017 – Jen Moran, MS, ACNP educated 30 RHOP stroke survivors on stroke prevention and FAST
- May 31, 2017 – Jen Moran, MS, ACNP provided FAST education for Mary Knoll elementary school's kindergarten class
- May 22, 2017 – Jen Moran, MS, ACNP provided FAST education at Ma'ili elementary school for grades K-6
- May 16, 2017 – Jen Moran, MS, ACNP provided FAST education at Waianae elementary school for grades K-6
- May 8 and 13, 2017– Jen Moran, MS, ACNP educated community listeners on Dr Health radio show (live and rebroadcast).
- May 1,2017–Kazuma Nakagawa, M.D. and Jen Moran, MS, ACNP appeared on KHON's "Living808" to provide stroke education
- April 28, 2017– QMC RNs (including Ilocano speaking) educated 300 Monsanto employees on stroke awareness

- January 9, 2017– Cherylee Chang, M.D. appeared on KHON morning news to inform public about QMC becoming the first Comprehensive Stroke Center in Hawaii and treatment available for stroke.
- December 5, 2016– Jen Moran, MS, ACNP discussed stroke recognition and risk factors in light of recent death of Keo Woolford (Local huala and producer talent) on KHON am Talk show. Public Television.
- October 28, 2016 – Jen Moran and local AACN chapter RNs educate St. Clemente Kindegarten classes Hands on CPR and FAST stroke recognition
- July 19, 2016, – Matthew Koenig, M.D. and Jen Moran, MS, ACNP educated 50 residents at Craigsides Senior living facility on stroke education.
- June 16, 2017 – Jen Moran, MS, ACNP educated AHA Heart Health: Simple 7 and Stroke Awareness
- May, 2016 – Matthew Koenig, M.D. Speaking of Health QMC: How to Prevent and Survive a Stroke QMC Speaking of Health Community education venue [https://youtu/xk6yMwuo\\_b1Mwuo](https://youtu/xk6yMwuo_b1Mwuo)
- May, 2016 – Nakagawa, Kazuma, M.D discussed stroke awareness, prevention and treatment in Ka Wai Ola SNF Newsletter
- June 16, 2016 – Johnna DelCastillo Taught S/S of stroke and distributed stroke magnets to Canoe Paddling Club members (about 18 children).
- June 16, 2016 – Tiffany Hoke DNP, educated the community of Lanai onAHA's Life's Simple Seven
- May 28, 2016 – Rony, Salem, M.D. educated the public about stroke awareness on KDNH radio station
- May 27, 2016 – Matthew Koenig, M.D. promoted stroke awareness at Speaking of Health QMC– AMC Community Awareness Health topics
- May 25, 2016 Jen Moran, MS, ACNP educated about 150 members of the public at Stroke Awareness Booth Kualoa Ranch Health and Benefits Fair.
- May 14, 2016 – Matthew Koenig , M.D., Sung Lee, M.D and Jen Moran, MS, ACNP spoke on KHNR 690 AM's "Dr Health Radio" show to promote stroke awareness
- May 9, 2016 – Matthew Koenig, M.D. and Sung Lee, M.D. spoke about stroke awareness and systems of Care on KITV Body Show
- April 26, 2016 – QMC RNs (including Ilocano speaking) educated 300 Monsanto employees on stroke awareness
- April 21, 2016 – Denise Dittrich, RN educated members of the Windward YMCA. AHA presentation. Life's Simple Seven.
- March 14, 2016 – Jen Moran, MS, ACNP spoke on Healthy Mondays Radio Show on AM Christian Radio station
- March 14, 2016 – Jen Moran, MS, ACNP discussed Stroke in Our Community on Public AM radio station
- March 11, 2016 –QMC RNs educate St. Clemente Kindegarten classes on Hands only CPR and FAST stroke recognition
- March 2, 2016 – Matthew Koenig, M.D. Your Brain Matters, Channel 54 Olelo Access TV
- February 25, 2016 – Juliet Beniga, RN educated community of Molokai for Nā Pu'uwai on AHA's Life's Simple Seven

- January 28, 2016–QMC MDs and RNs spoke with members of Hawaii Young Professional Executives meeting on stroke education
- September 28, 2015 Article in Star-Advertiser entitled, “When Stroke Symptoms are present FAST action is critical”.
- May 17, 2014–QMC West O’ahu Community Health Fair- educated 1000 people on stroke signs and symptoms and telestroke network.
- Public health campaign 'Spot a Stroke' was a joint effort between DOH, QMC, and AHA that placed stroke education signs on every Oahu bus from May-September of this year. This campaign resulted in an estimated 14 million impressions on Oahu bus riders and was paid from our Neurotrauma Fund grant and the placement fee was donated by Ad Walls.
- Dr Koenig filmed a promo with the Pacific Basin Telehealth Resource Center regarding the telestroke project. To view the video: <http://vimeo.com/102377242>
- July 22, 2013–Craigside Place, educated 100 seniors on “Stroke: What you should know.”
- June 21, 2013–Waipio Senior Fair, Hawaii Okinawan Center, partnered with Wahiawa General Hospital and Genentech to conduct stroke risk assessments with 240 people and educate on stroke signs and symptoms and telestroke network.
- May 29, 2013–QMC, educated 150 medical center staff and guests on the stroke chain of survival (i.e. stroke risk factors, stroke signs and symptoms, acute stroke treatment and the telestroke network).
- May 16, 2013–Hawaii Dental Services, educated 40 worksite staff on “Heart Disease and Stroke: What women should know.”
- April 24, 2013 –QMC, educated 15 volunteers on “Stroke: What you should know.”
- February 15, 2013- Moanalua Middle School Health and Safety Fair, educated over 75 middle schoolers on signs and symptoms of stroke.
- October 27, 2012 - Wahiawa Community Health Fair, educated over 300 in the Wahiawa community about stroke and signs and symptoms and introduced them to Hawaiian Islands Regional Stroke Network Camera System.
- Article in Star-Advertiser on 10/18/12

## Hawaii Neurotrauma Registry Project

### Activities Report

March 20, 2019 – April 19, 2020

	<b>Registry New Enrollees (total)</b>	Oahu	Hawaii	Maui County	Kauai	<b>Outreach Activities</b>	General	Educational Presentations	
Mar-19	1	1	0	0	0	2	0	2	Mar-19
Apr-19	2	1	0	1	0	6	3	3	Apr-19
May-19	6	6	0	0	0	9	9	0	May-19
<b>TOTAL</b>	<b>9</b>	<b>8</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>17</b>	<b>12</b>	<b>5</b>	<b>TOTAL</b>
<b>Annual Target</b>	<b>300</b>	200	50	25	25	<b>240</b>	168	72	<b>Annual Target</b>
<b># needed to meet target</b>	<b>291</b>	<b>192</b>	<b>50</b>	<b>24</b>	<b>25</b>	<b>223</b>	<b>156</b>	<b>67</b>	<b># needed to meet target</b>



# Hawaii Neurotrauma Registry Project

## Information and Referral Report

March 20, 2019 – April 19, 2020

	Initial Contacts				Outcomes			6 month follow-ups		12 month follow-ups	
	Number of I&R received	Contact within 14 days	Contact after 14 days	No contact made	Took survey	Requested resources	Declined assist	Number of 6 month follow-ups	Number contacted	Number of 12 month follow-ups	Number contacted
Mar-19	1	1	n/a	n/a	n/a	n/a	1	0	0	0	0
Apr-19	10	1	4	3	5	2	1	0	n/a	4	1 so far
May-19	9	5			3	2	3	0	0	0	0
<b>TOTAL</b>	<b>20</b>	<b>7</b>	<b>4</b>	<b>3</b>	<b>8</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1 so far</b>